

$$\text{annual fuel consumption} = \sum_{\text{Fuel Types}} \left[\begin{array}{l} \text{quantity of fuel consumed} \\ \times \text{heat content} \times \text{unit conversion} \end{array} \right]$$

and unit conversion

- = 2 for coal
- = 0.001 for oil
- = 1 for gas

For other fuels, the combustion source must specify unit conversion.

(2) For combustion sources that commenced operation after January 1, 1985,

the alternative baseline is the average annual quantity of fuel consumed in the first three consecutive calendar years during which the combustion source operated after December 31, 1985, expressed in mmBtu. The alternative baseline shall be calculated as follows:

$$\text{alternative baseline} = \frac{\sum_{\text{First 3 consecutive years}} \text{annual fuel consumption}}{3}$$

where,

“annual fuel consumption” is as defined under paragraph (b)(1)(i) or (ii) of this section.

(c) *Alternative data.* (1) For combustion sources for which any of the data under paragraph (b) of this section is not available due solely to a natural catastrophe, data as set forth in paragraph (a)(2) of this section for the first three consecutive calendar years for which data is available after December 31, 1985, may be submitted. The alternative baseline for these combustion sources shall be calculated using the equation for alternative baseline in paragraph (b)(2) of this section and the definition of annual fuel consumption in paragraphs (b)(1)(i) or (ii) of this section.

(2) Except as provided in paragraph (c)(1) of this section, no alternative data may be submitted. A combustion source that cannot submit all required data, in accordance with this section, shall not be eligible to submit an option in permit application.

(d) *Administrator's action.* The Administrator may accept in whole or in part or with changes as appropriate, request additional information, or reject data or alternative data submitted for a combustion source's baseline or alternative baseline.

§ 74.22 Actual SO₂ emissions rate.

(a) *Data requirements.* The designated representative of a combustion source shall submit the calculations under this section based on data submitted under § 74.20 for the following calendar year:

(1) For combustion sources that commenced operation prior to January 1, 1985, the calendar year for calculating the actual SO₂ emissions rate shall be 1985.

(2) For combustion sources that commenced operation after January 1, 1985, the calendar year for calculating the actual SO₂ emissions rate shall be the first year of the three consecutive calendar years of the alternative baseline under § 74.20(b)(2).

(3) For combustion sources meeting the requirements of § 74.20(c), the calendar year for calculating the actual SO₂ emissions rate shall be the first year of the three consecutive calendar years to be used as alternative data under § 74.20(c).

(b) *SO₂ emissions factor calculation.* The SO₂ emissions factor for each type of fuel consumed during the specified year, expressed in pounds per thousand tons for coal, pounds per thousand barrels for oil and pounds per million cubic feet (scf) for gas, shall be calculated as follows:

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SO₂ Emissions Factor = (average percent of sulfur by weight) × (k),

where,

average percent of sulfur by weight

= annual average, for a combustion source submitting annual data

= monthly average, for a combustion source submitting monthly data

k = 39,000 for bituminous coal or anthracite

= 35,000 for subbituminous coal

= 30,000 for lignite

= 5,964 for distillate (light) oil

= 6,594 for residual (heavy) oil

= 0.6 for natural gas

For other fuels, the combustion source must specify the SO₂ emissions factor.

(c) *Annual SO₂ emissions calculation.*

Annual SO₂ Emissions for the specified calendar year, expressed in pounds, shall be calculated as follows:

(1) For a combustion source submitting monthly data,

$$\text{Annual SO}_2 \text{ Emissions} = \sum_{\text{months=Jan}}^{\text{Dec}} \sum_{\text{Fuel Types}} \left[\begin{array}{l} \text{quantity of fuel consumed} \\ \times \text{SO}_2 \text{ emissions factor} \\ \times (1 - \text{control system efficiency}) \\ \times (1 - \text{fuel pre-treatment efficiency}) \end{array} \right]$$

(2) For a combustion source submitting annual data:

$$\text{Annual SO}_2 \text{ Emissions} = \sum_{\text{Fuel Types}} \left[\begin{array}{l} \text{quantity of fuel consumed} \\ \times \text{SO}_2 \text{ emissions factor} \\ \times (1 - \text{control system efficiency}) \\ \times (1 - \text{fuel pre-treatment efficiency}) \end{array} \right]$$

where,

“quantity of fuel consumed” is as defined under § 74.20(a)(2)(i);

“SO₂ emissions factor” is as defined under paragraph (b) of this section;

“control system efficiency” is as defined under § 60.48(a) and part 60, appendix A, method 19 of this chapter, if applicable; and

“fuel pre-treatment efficiency” is as defined under § 60.48(a) and part 60, appendix A, method 19 of this chapter, if applicable.

(d) *Annual fuel consumption calculation.* Annual fuel consumption for the specified calendar year, expressed in mmBtu, shall be calculated as defined under § 74.20(b)(1) (i) or (ii).

(e) *Actual SO₂ emissions rate calculation.* The actual SO₂ emissions rate for the specified calendar year, expressed in lbs/mmBtu, shall be calculated as follows:

$$\text{Actual SO}_2 \text{ Emissions Rate} = \frac{\text{Annual SO}_2 \text{ Emissions}}{\text{Annual Fuel Consumption}}$$

[60 FR 17115, Apr. 4, 1995, as amended at 63 FR 18841, Apr. 16, 1998]

§ 74.23 1985 Allowable SO₂ emissions rate.

(a) *Data requirements.* (1) The designated representative of the combustion source shall submit the following

data and the calculations under paragraph (b) of this section based on the submitted data:

(i) Allowable SO₂ emissions rate of the combustion source expressed in lbs/